

# Web Open Font Format (WOFF)

# Fonts on the Web (where we were)

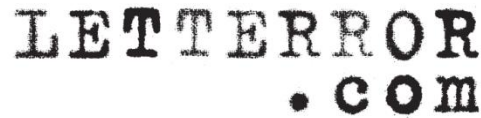
- 1996
  - First W3C attempt to bring fonts on the Web
  - Two major browsers supporting incompatible proprietary font solutions (EOT vs. PFR)
  - Web authors resorted to using “web-safe” fonts
- 2007
  - Some browsers introduced support for raw fonts
  - Creation of the Fonts Working Group is discussed
- 2008
  - EOT submission – the debate continues
- 2009
  - ZOT & .webfont proposals – we’re out of the maze!

# Fonts on the Web (where we are)

- ZOT + .webfont = WOFF
- New format is born
  - Many thanks to the original authors Erik van Blokland (Letterror.com), Jonathan Kew (Mozilla) and Tal Leming (Type Supply)
- Font and browser makers are united with Web authors and users
- WebFonts WG is formed



# WebFonts Working Group



# Fonts on the Web (where we are)

- WOFF specification is published as a First Public Working Draft
  - Spec is available without fees (RF commitments)
  - Triggers opportunity for patent exclusion
  - More drafts may follow – clarifications, improvements, bug fixes, but no major changes are expected!
- Major browsers support WOFF today!

# Fonts on the Web (where we are)



# Fonts on the Web (where we go)

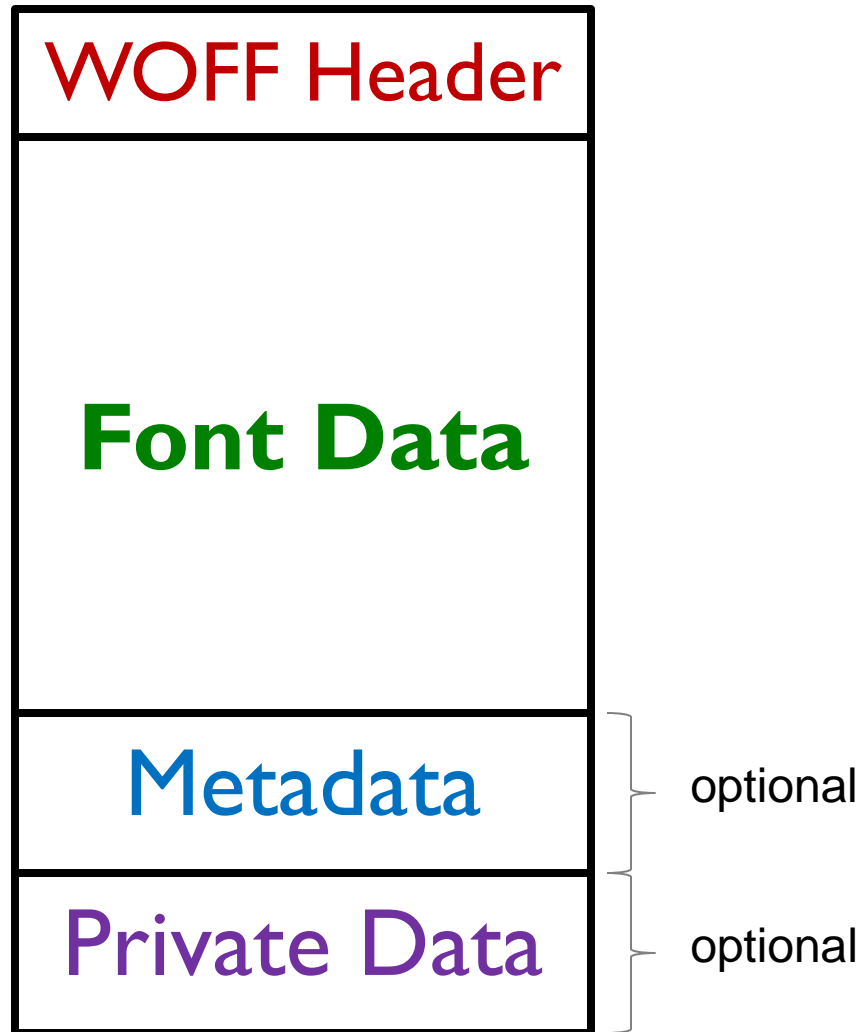
- **Last Call Working Draft**
  - Everyone agrees and we are all happy
  - Last opportunity for patent exclusion
  - Accessibility and internationalization review
- **Candidate Recommendation**
  - Creation of a test suite
  - Testing of implementations
  - Implementation report (2+ implementations pass)
- **Proposed Recommendation (W3C, pass/fail)**
- **W3C Recommendation – Web Standard!**

# WOFF

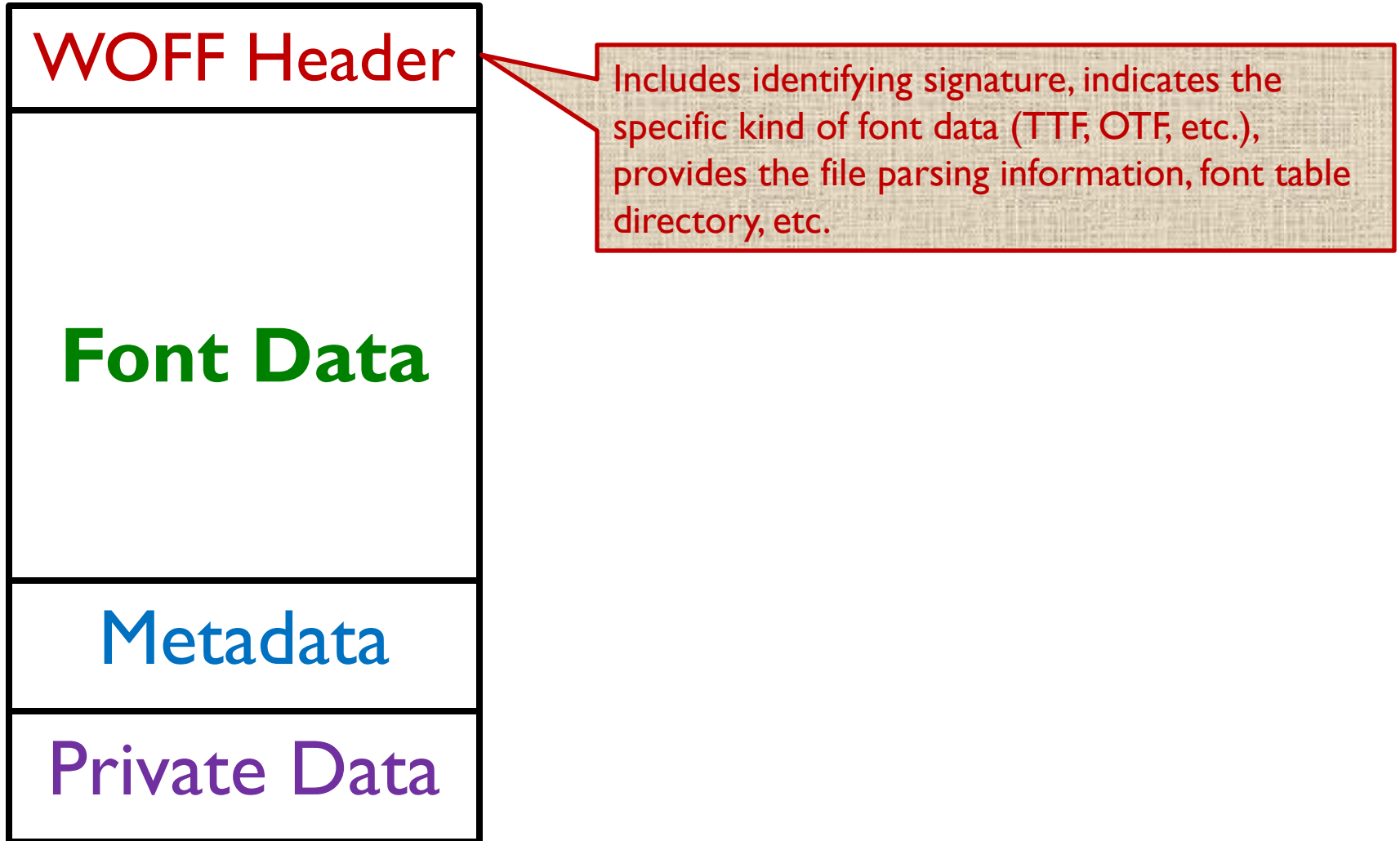
## What is it, exactly?



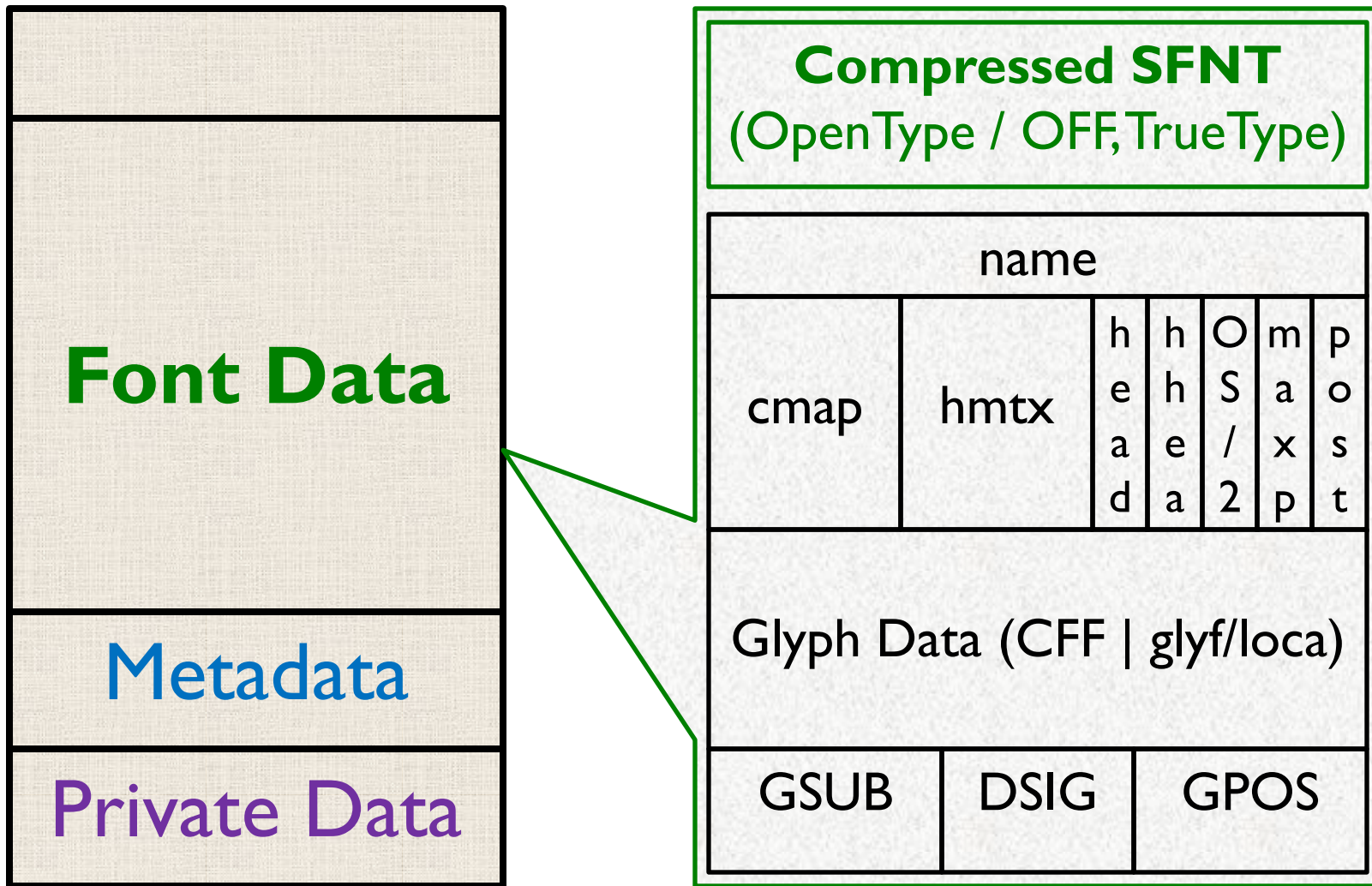
# WOFF File Format



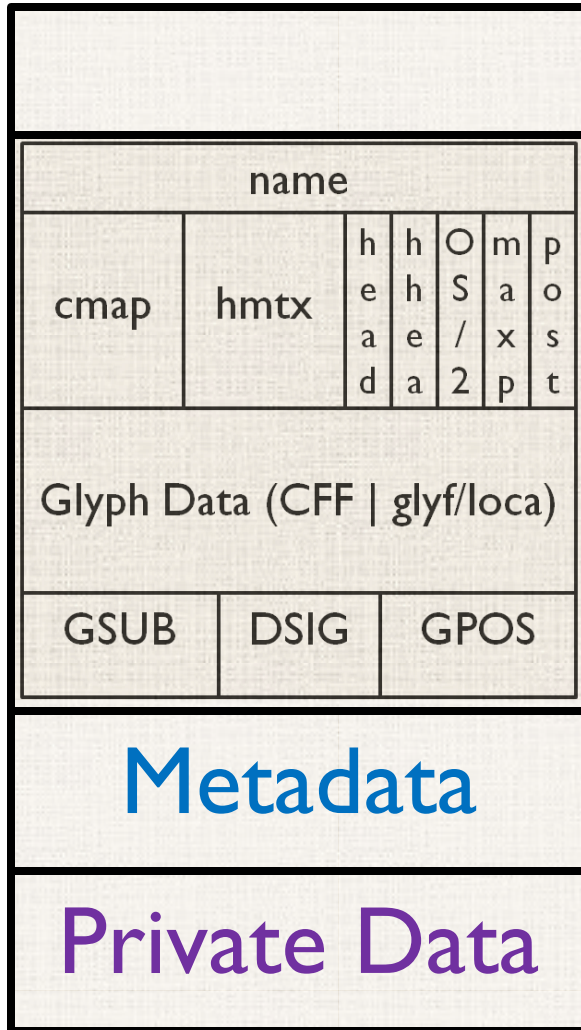
# WOFF File Format



# WOFF File Format

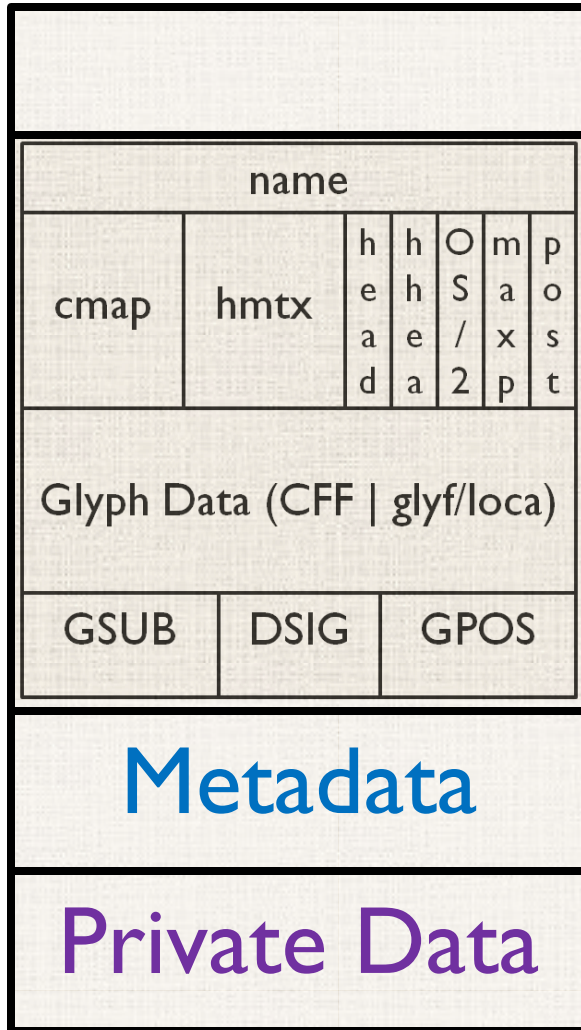


# WOFF File Format



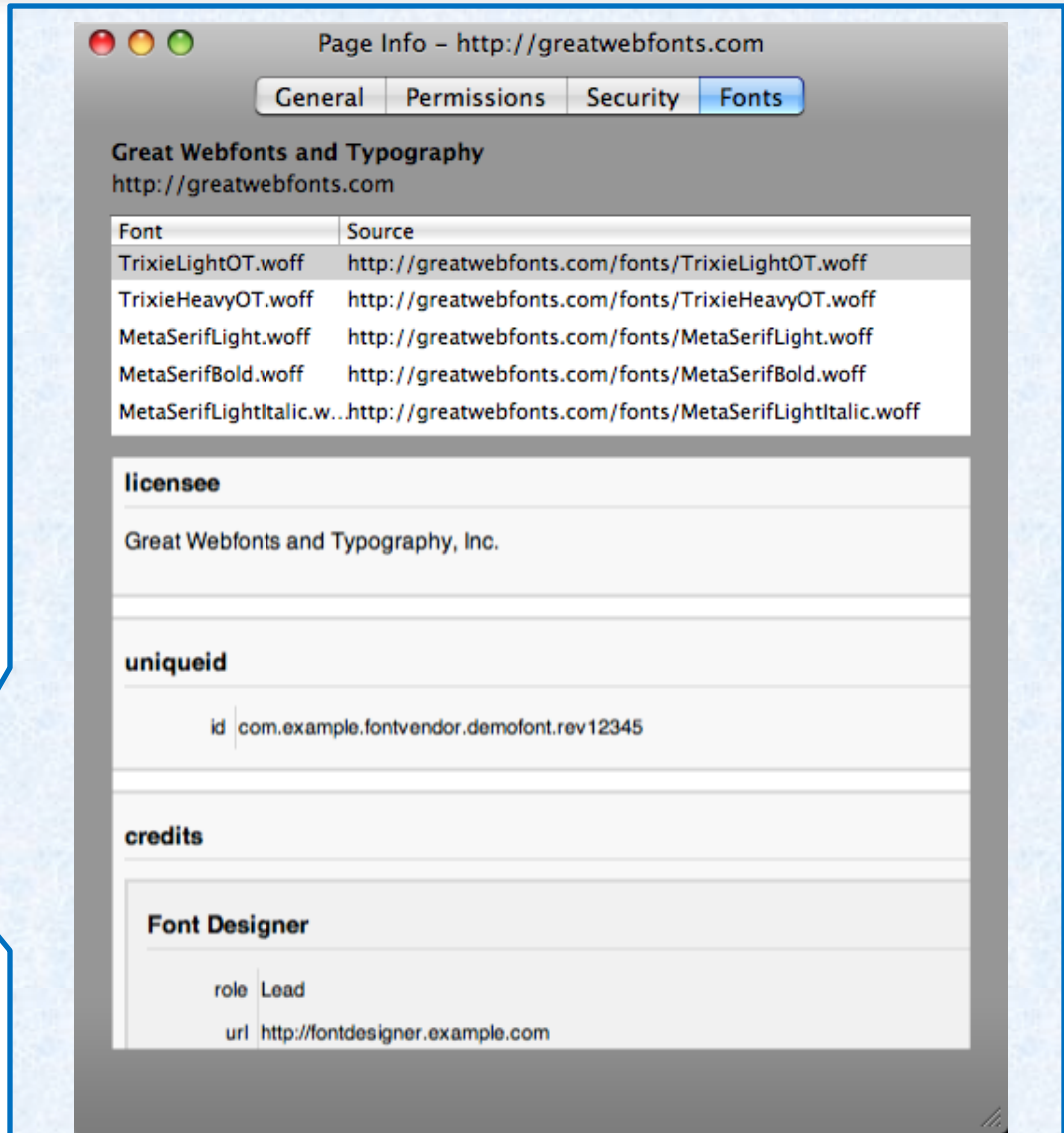
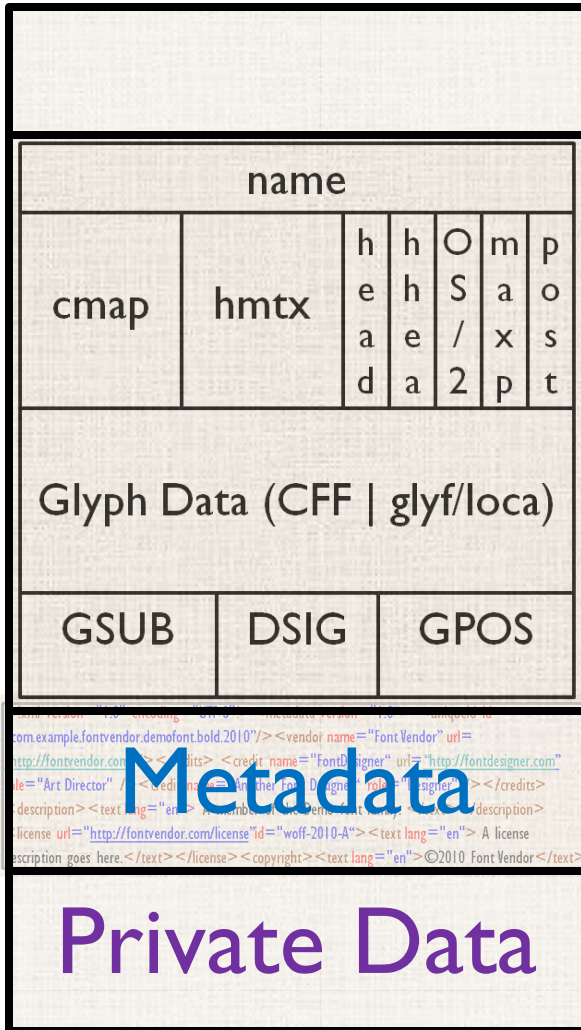
<b>Unique ID</b>	A unique identifier for the font
<b>Vendor</b>	The vendor name and URL
<b>Credits</b>	Info about designer, hinter, etc.
<b>Description</b>	Typeface description, history, use recommendation, etc.
<b>License Info</b>	Information about font license
<b>Copyright</b>	A copyright notice for the font
<b>Trademark</b>	A trademark statement
<b>Licensee</b>	The licensee for the font
<b>Extensions</b>	Vendor-specific extended info

# WOFF File Format

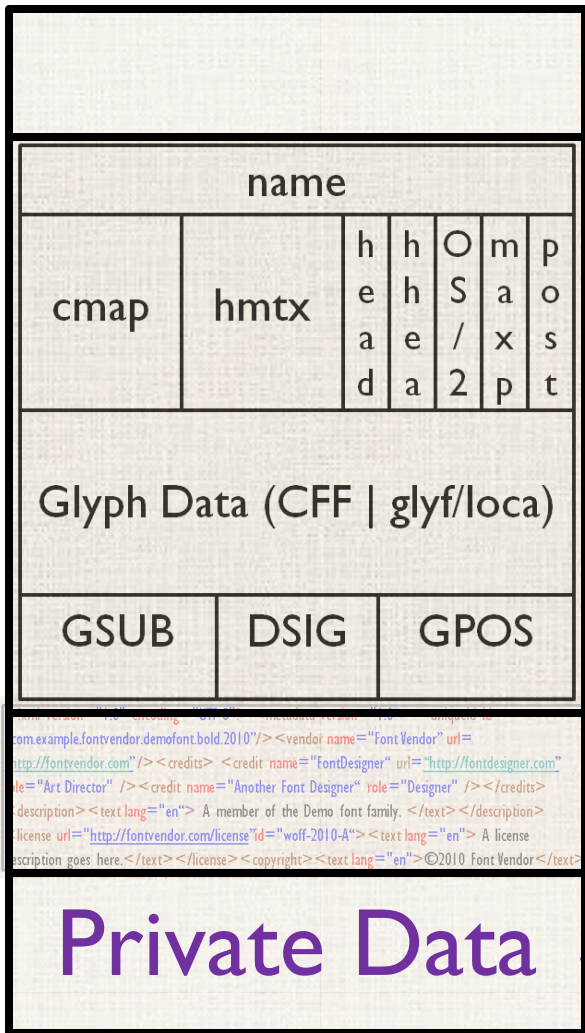


```
<?xml version="1.0" encoding="UTF-8"?>
<metadata version="1.0">
  <uniqueid id="com.example.fontvendor.demofont.bold.2010" />
  <vendor name="Font Vendor" url="http://fontvendor.com" />
  <credits>
    <credit name="FontDesigner" url="http://fontdesigner.com"
      role="Art Director" />
    <credit name="Another Font Designer" role="Designer" />
  </credits>
  <description>
    <text lang="en"> A member of the Demo font family. </text>
  </description>
  <license url="http://fontvendor.com/license" id="woff-2010-A">
    <text lang="en">A license description goes here.</text>
  </license>
  <copyright>
    <text lang="en">©2010 Font Vendor</text>
  </copyright>
  ...
</metadata>
</font>
```

# WOFF File Format



# WOFF File Format



A block of arbitrary data reserved exclusively for use by font creators.

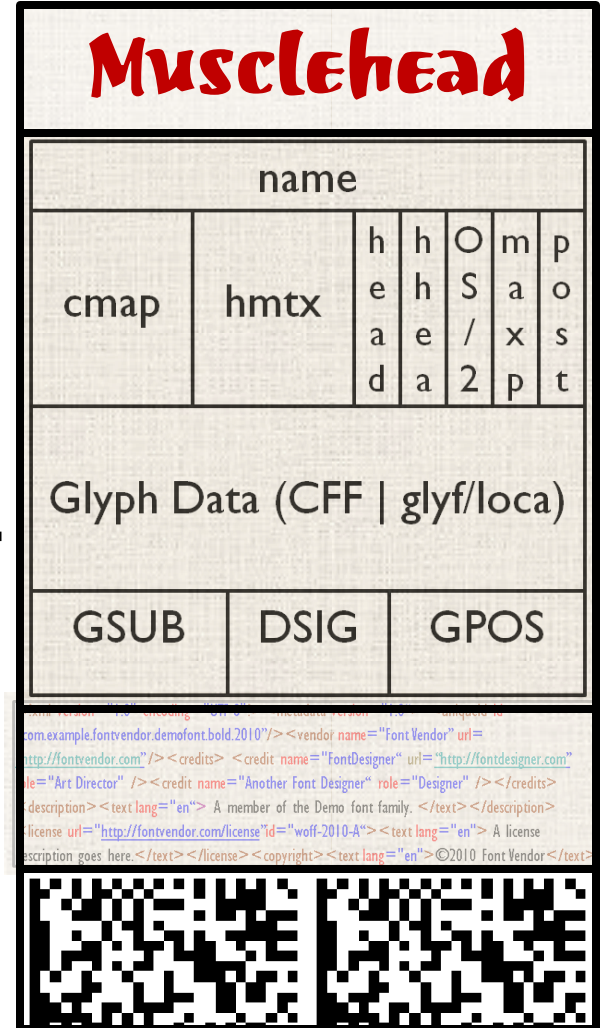


# WebFonts in Action

```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
  <title>WOFF Example</title>
  <style type="text/css">
  <!-- /* The is CSS code that defines font source and style */
  #wrapper {
    width:600px;
    margin:40px;
  }
  @font-face {
    font-family: Musclehead;
    src: url(woff_files/Musclehead.woff) format("woff");
  }
  .headline {
    font-family:Musclehead, Verdana, sans-serif;
    font-size:60px;
    text-shadow: #ccc 2px 2px 5px;
    color:#00B7EB;
  }
  -->
</style>
</head>
<body>
  <div id="wrapper">
    <p class="headline">ATypI, meet WOFF
    <br />WebFonts in action</p>
  </div>
</body>
</html>
```

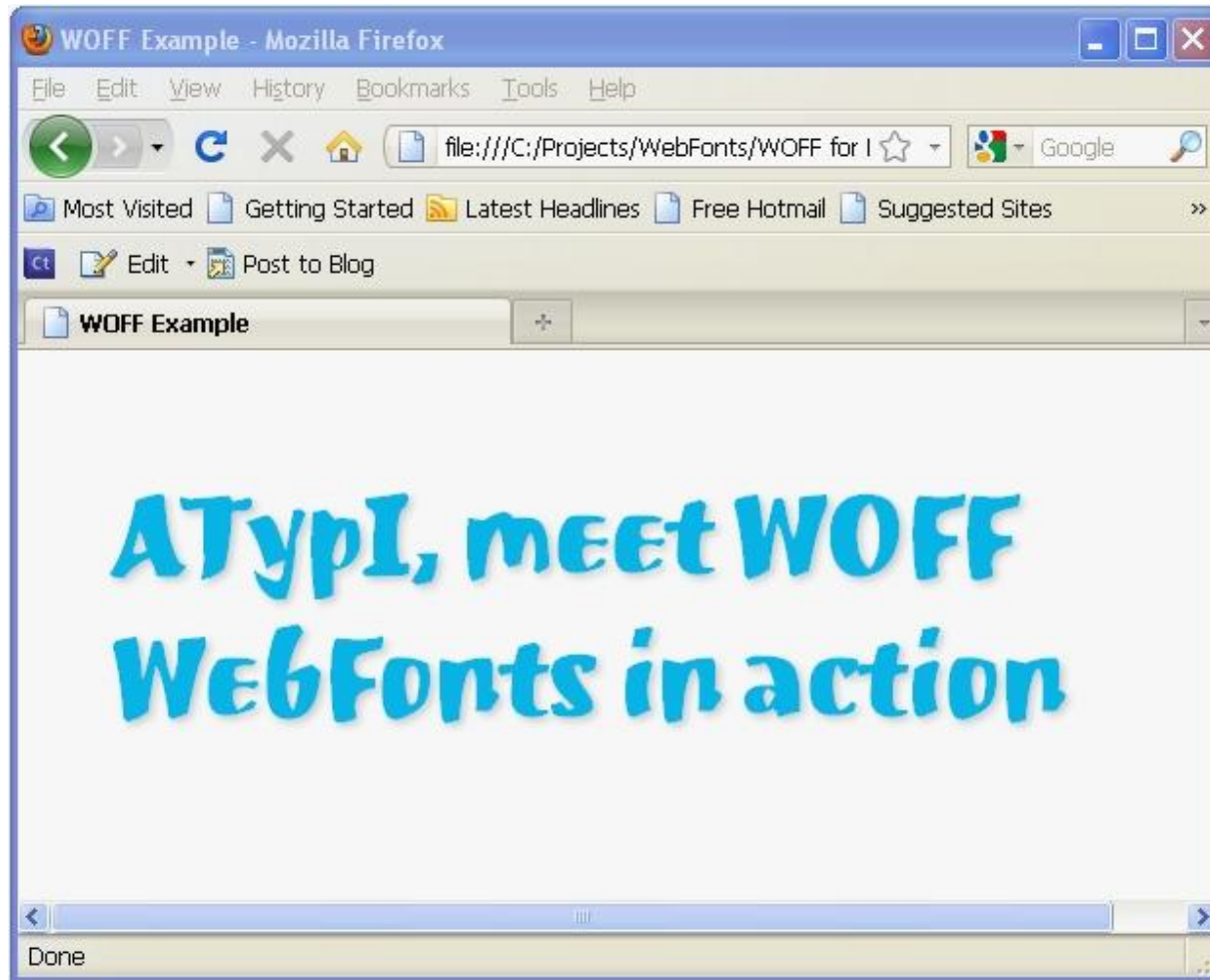


+





# WebFonts in Action



# WebFonts in Action

Typographic diversity for the web — Erik Spiekermann and FontFont endorse WOFF

http://edenspiekermann.com/woff/

## Typographic diversity for the web

*Erik Spiekermann and FontFont endorse WOFF*

October 20, 2009 — **FF Meta** was originally conceived as a typeface for use in small point sizes. Against its intended purpose, FF Meta very quickly became one of the most popular typefaces of the computer era. It is mainly used in magazines, from the Normal weight in small point sizes for captions up to the Black version for large headlines.

However, now it's time to use this typeface on web sites as well.

For this reason, **FontFont** Type foundry and Erik Spiekermann endorse the original, commercial version of the typeface. We hope that all web browsers will support WOFF.

©1998–2010 Medewerkers. Alle rechten voorbehouden. (Licentie-informatie). Firefox en de Firefox-logo's zijn handelsmerken van de Mozilla Foundation. Alle rechten voorbehouden.

Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10.6; nl; rv:1.9.2.6) Gecko/20100625 Firefox/3.6.6

Medewerkers

A e g 1/2 & M

# WebFonts in Action

Typographic diversity for the web — Erik Spiekermann and FontFont endorse WOFF - Windows Internet Explorer Platform Preview 1.9.7916.6000

Page Debug Report Issue Help

## Typographic diversity for the web

*Erik Spiekermann and FontFont endorse WOFF*

October 20, 2009 — **FF Meta** was originally conceived as a typeface for use in small point sizes. Against its intended purpose, **FF Meta** very quickly became one of the most popular typefaces of the computer era. It is mainly used in magazines, from the Normal weight in small point sizes for captions up to the Black version for large headlines.

However, now it's time to use this typeface on web sites as well.

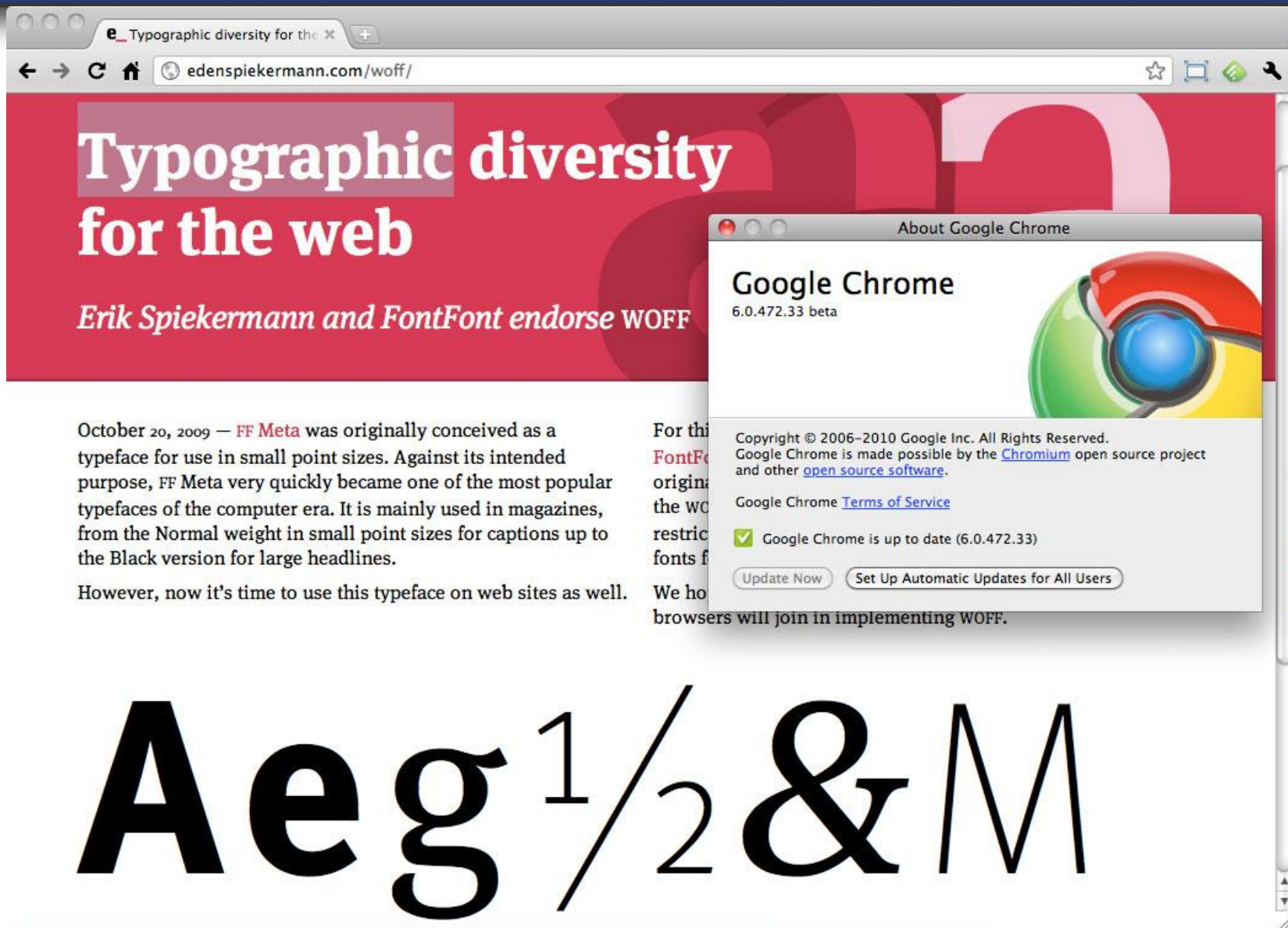
For this reason **FF Meta** and **FontFont Typeface** endorse the **WOFF** specification, with default same-origin loading restrictions, as a Web font format. FontFont expects to license fonts for Web use in this format.

We hope that besides the upcoming **Mozilla Firefox 3.6** other browsers will join in implementing **WOFF**.

**A e g <sup>1</sup>/<sub>2</sub> & M**

Edenspiekermann FontFont Mozilla WOFF

# WebFonts in Action



## Typographic diversity for the web

*Erik Spiekermann and FontFont endorse WOFF*

October 20, 2009 — **FF Meta** was originally conceived as a typeface for use in small point sizes. Against its intended purpose, FF Meta very quickly became one of the most popular typefaces of the computer era. It is mainly used in magazines, from the Normal weight in small point sizes for captions up to the Black version for large headlines.

However, now it's time to use this typeface on web sites as well.

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browsers will join in implementing WOFF.

### Google Chrome

6.0.472.33 beta



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Google Chrome is made possible by the [Chromium](#) open source project and other [open source software](#).

Google Chrome [Terms of Service](#)

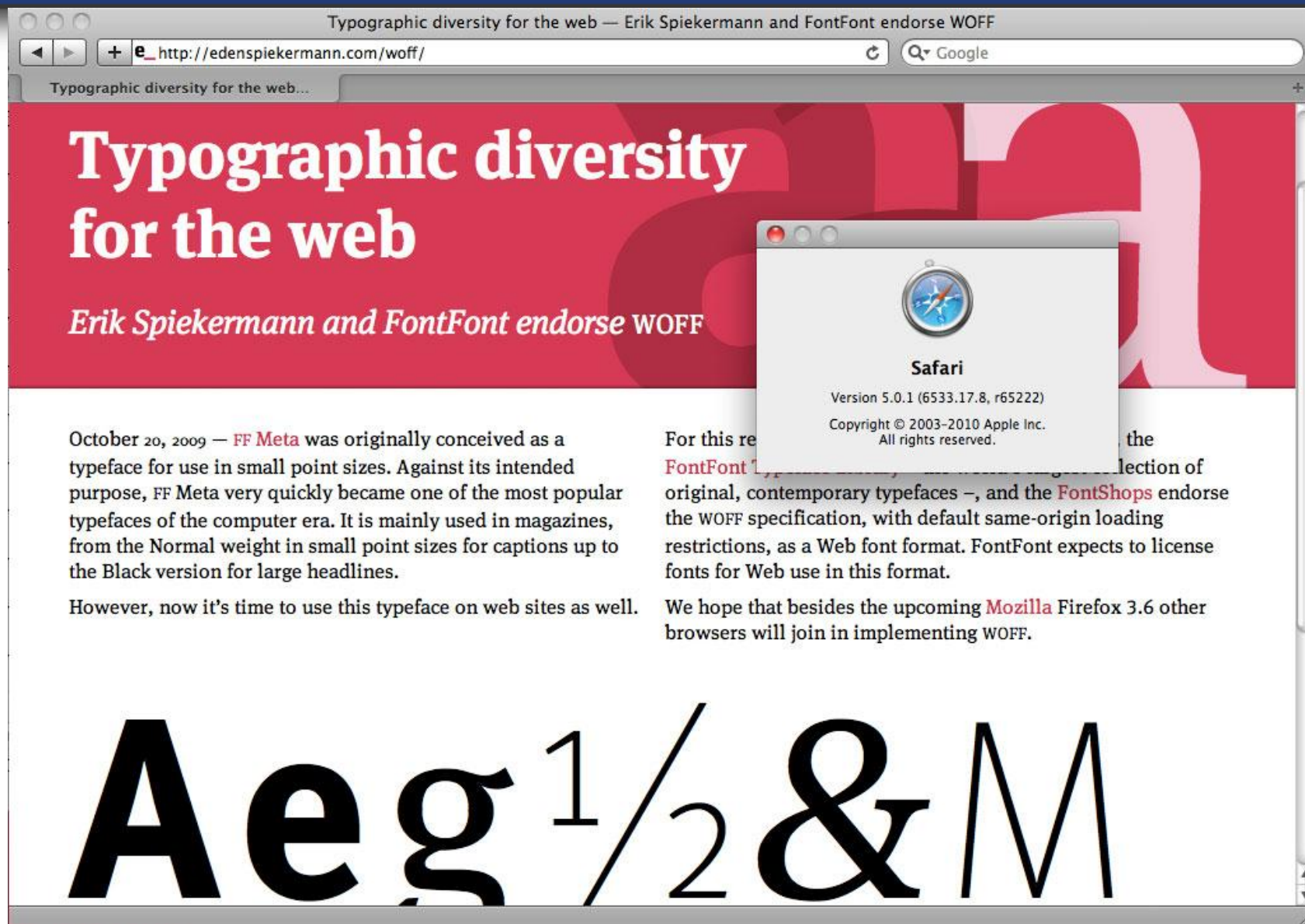
✓ Google Chrome is up to date (6.0.472.33)

Update Now

Set Up Automatic Updates for All Users

A e g  $\frac{1}{2}$  & M

# WebFonts in Action



The screenshot shows a Safari browser window with the address bar containing `http://edenspiekermann.com/woff/`. The page title is "Typographic diversity for the web — Erik Spiekermann and FontFont endorse WOFF". The main heading is "Typographic diversity for the web" in a large, bold, black serif font. Below it, a sub-heading reads "Erik Spiekermann and FontFont endorse WOFF". The page content includes two columns of text. The left column discusses the history of the FF Meta typeface, while the right column discusses the WOFF specification and its adoption by Mozilla Firefox 3.6. A large font specimen "A e g 1/2 & M" is displayed at the bottom. A Safari system window is overlaid on the page, showing the version "5.0.1 (6533.17.8, r65222)" and copyright information.

Typographic diversity for the web — Erik Spiekermann and FontFont endorse WOFF

http://edenspiekermann.com/woff/

## Typographic diversity for the web

*Erik Spiekermann and FontFont endorse WOFF*

October 20, 2009 — **FF Meta** was originally conceived as a typeface for use in small point sizes. Against its intended purpose, FF Meta very quickly became one of the most popular typefaces of the computer era. It is mainly used in magazines, from the Normal weight in small point sizes for captions up to the Black version for large headlines.

However, now it's time to use this typeface on web sites as well.

For this reason, the **FontFont** collection of original, contemporary typefaces —, and the **FontShops** endorse the WOFF specification, with default same-origin loading restrictions, as a Web font format. FontFont expects to license fonts for Web use in this format.

We hope that besides the upcoming **Mozilla** Firefox 3.6 other browsers will join in implementing WOFF.

**A e g 1/2 & M**

# Same-Origin Restriction and CORS

- WebFonts introduce a significant security risk
- Same-origin restriction protects users from malicious attacks involving font files, and is mandated by CSS and WOFF specifications



# Same-Origin Restriction and CORS

- Same-origin restriction is satisfied if both HTML document and the fonts are delivered using:
  - Same protocol
  - Same domain
  - Same port
- The restriction can be lifted using “Cross-Origin Resource Sharing” (a new technology being developed by W3C)

# What WOFF isn't!



# WOFF is not a new Font Format



WOFF Metadata



Private Data

WOFF  
FREE SHIPPING

# WOFF is **not** a DRM

- There is no obfuscation or rights management:
  - A font packaged inside WOFF file can be easily converted back to its original format.
  - WOFF serves as a “garden fence” that informs users about the intended web font use and license conditions.
  - Violators can no longer claim ignorance – they know exactly what they’re doing



# WOFF is **not** theft-proof

- “Can I download a WOFF file from a Web server and simply upload it to my own server?”
- Yes, you can! But, by doing so:
  - You identify yourself as a thief! The WOFF metadata says that someone else has actually licensed a font.
  - Metadata can be edited, but the private data will likely contain information that identifies a licensee transaction ID
  - Private data can be removed but the font itself remains identifiable and its presence on a server paints you as a thief
- WOFF metadata and private data are there for font creators – use it to protect your IP!

# WOFF

## Creation Tools

# WOFF Creation Tools

```
C:\WINDOWS\system32\cmd.exe

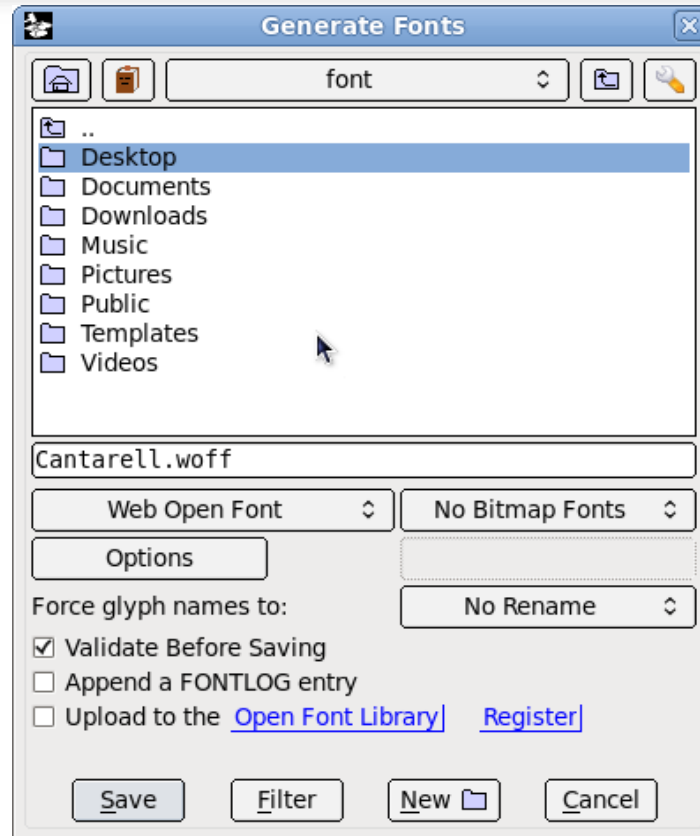
C:\Projects\WebFonts\WOFF for MS\make_woff>sfnt2woff
Usage:
  sfnt2woff [-v <maj>.<min>] [-m <metadata.xml>] [-p <private.dat>] <otffile>
  package OpenType <otffile> as WOFF, creating <otffile>.woff
Options:
  -v <maj>.<min>    set font version number <major and minor, both integers>
  -m <metadata.xml> include metadata from <metadata.xml> <not validated>
  -p <private.dat>  include private data block

C:\Projects\WebFonts\WOFF for MS\make_woff>
```

## sfnt2woff

<http://people.mozilla.com/~jkew/woff/>

# WOFF Creation Tools



## FontForge

<http://fontforge.sourceforge.net/>

# WOFF Creation Tools

The screenshot shows the 'WOFF Data' tab of a web application. It contains several sections for editing font metadata:

- Identification:** Version: 1.0, Unique ID: com.typesupply.ohm.bold.2009.1.0
- Parties:** Vendor Name: Type Supply, Vendor URL: http://typesupply.com
- Credits:** A table with columns for Name, Role, and URL. One entry is: Tal Leming, Designer, http://typesupply.com.
- Description:** Text: A member of the Ohm family.

The screenshot shows the 'WOFF Inspector' window. The top bar indicates the file 'Ohm-Bold.woff' and the test results: 87 PASS, 0 WARNING, 0 ERROR, and 5 NOTE. The main content area displays the following results:

Category	Count	Action
PASS	87	Hide
WARNING	0	Hide
ERROR	0	Hide
NOTE	5	Hide

Below the summary, specific test results are shown for the 'Header' section:

- Header - Size:** PASS The header length is correct.
- Header - Structure:** PASS The header structure is correct.
- Header - Signature:** PASS

## WOFF Tools

<http://code.typesupply.com/>

<http://tools.typesupply.com/>

**Wf:a** **The Web font awards**  
THE WEB FONT AWARDS Recognizing websites integrating Web fonts to their greatest use [LEARN MORE](#)

Monotype Imaging  
Carsonified  
Sponsored by **Monotype Imaging Inc.**  
and presented together with **Carsonified**

slanted novum  
CreativeReview HOW  
atypi  
MEDIA AND INDUSTRY PARTNERS

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rate others' designs  
share your favorites

**Any Web Font service! Any technology! Any design!**  
A design competition for website using Web fonts. Learn more  
at [www.webfontawards.com](http://www.webfontawards.com)



# Questions?

